

The benefit of diversification as you've never seen it

The topic of diversification has been described in many ways. One of our favourites is "protection from ignorance". Another is the famous "don't put all your eggs in one basket."

But to truly get to the heart of why investors should diversify, it's helpful to illustrate the benefit.

First, a little history. Harry Markowitz won a Nobel Prize in Economic Sciences for the novel concept that investors care about **more** than simply a great investment return. They also care about the **certainty** of getting that return. The more certain investors are, the lower the expected return they are willing to accept.

But how can we measure certainty? Markowitz suggested that an acceptable method was standard deviation. It is a simple measure that calculates, essentially, the typical difference between a series of numbers and its average. A series of numbers all bunched up around the average has a low standard deviation. A series of numbers that vary widely around the average has a high standard deviation.

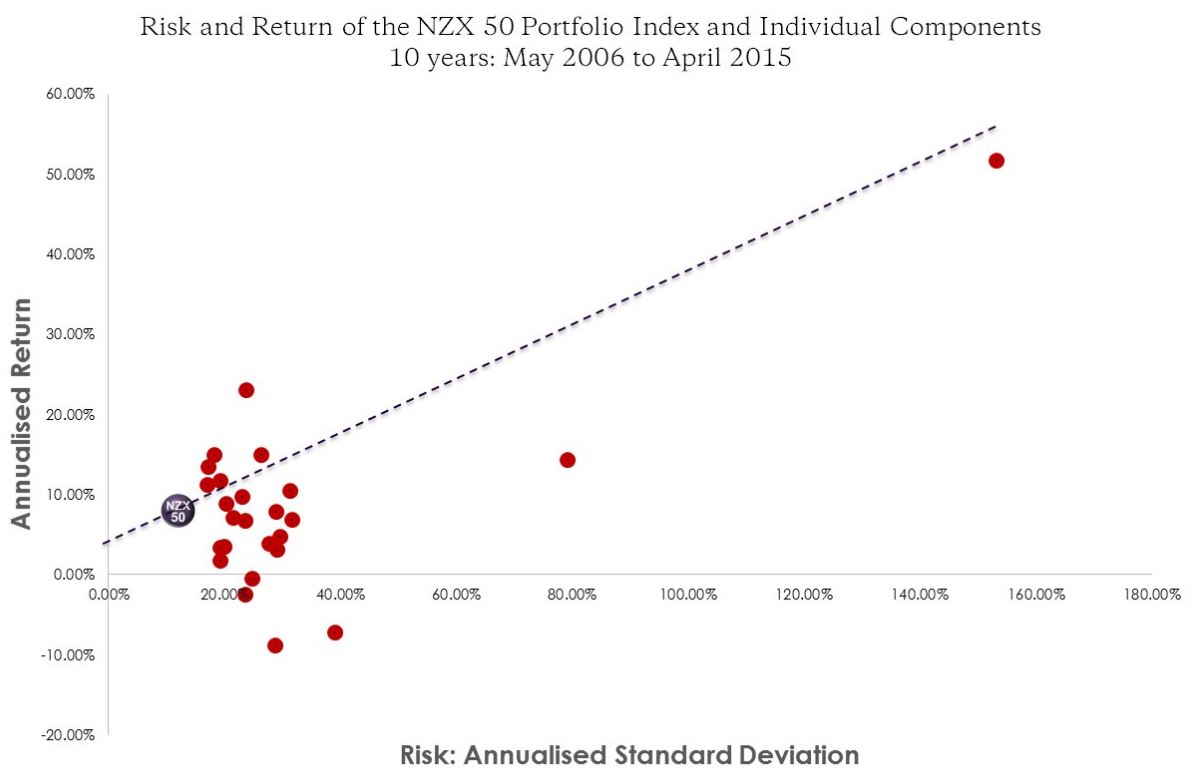
For investors, the concept is perhaps even more intuitive. How consistent have their returns been? Have they been up and down like a rollercoaster (high standard deviation) or have they tracked at a consistent rate (low standard deviation). All things being equal, an investor would prefer to have a nice, consistent return. A return like that gives them a lot more certainty about the near future.

Markowitz found something extraordinary in his research that most of us now simply take for granted. He found that if an investor held all the investments in a market (such as the NZX 50), they got about the same average return but at a much lower standard deviation as those picking their favourite shares. Believe it or not, that was an industry shattering discovery.

If you can get the same benefits (returns) with more certainty (lower standard deviation), it could be a bit foolish to not take advantage.

That background takes us to our chart below, where we show all the companies in the NZX 50 that have been listed for at least 10 years (as reported by Morningstar), compared to the NZX Portfolio Index that simply invests in all 50 companies.

The chart perfectly illustrates Markowitz's conclusion.



Source: Morningstar May 2015

Returns are on the vertical axis - the higher, the better. Standard deviation is on the horizontal axis - the lower, the better. The dotted line illustrates that, as you increase standard deviation, you should expect greater returns, although that isn't always the reality.

Here are some facts about this chart.

- Morningstar suggests there are 28 securities currently in the NZX 50 which have been listed publically for 10 or more years
- The NZX 50 Portfolio Index has **higher returns than 57%** of the individual components
- It also has **lower volatility than 93%** of the individual components
- Based on the Sharpe Ratio (a commonly used gauge to measure if investors are being compensated for risk), the **risk adjusted returns of the NZX 50 Portfolio Index are better than 70%** of the individual components.

In plain language, that is the benefit of diversification. The irony of all this benefit is that it is less expensive to access than an under diversified alternative. We pay 0.28% per annum to own the NZX 50 Portfolio Index, compared with an average fee upwards of 1.00% for a manager to select a few of the bunch and try to beat the index.

With diversification, investors are the real winners.

1. They get higher returns,
2. Greater certainty, and
3. Pay less for it.

Who wouldn't want that?